DATA SHEET

dNTP Mix

Premix of 10 mM dATP, dCTP, dGTP and dTTP

	Cat. No.	Volume	Conc.
	DMIX10_100ML	100 ml	4 x 10 mM
	DMIX10_1000ML	1000 ml	4 x 10 mM

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C, short term (up to one week) exposure to ambient temperature possible

dATP
2'-Deoxyadenosine 5'-triphosphate, sodium salt
Molecular formula: $C_{10}H_{13}N_5O_{12}P_3$ (Anion)
Molecular weight: 488.16 (Anion)

dCTP
2'-Deoxycytidine 5'-triphosphate, sodium salt
Molecular formula: $C_9H_{13}N_3O_{13}P_3$ (Anion)
Molecular weight: 464.13 (Anion)

dGTP
2'-Deoxyguanosine 5'-triphosphate, sodium salt
Molecular formula: $C_{10}H_{13}N_5O_{13}P_3$ (Anion)
Molecular weight: 504.16 (Anion)

dTTP
2'-Deoxythymidine 5'-triphosphate, sodium salt
Molecular formula: $C_{10}H_{14}N_2O_{14}P_3$ (Anion)
Molecular weight: 479.14 (Anion)

Form
clear aqueous solution

pH
8.5 ±0.2 (22 °C)

Purity
≥ 99 % (HPLC)

Application for PCR
For standard PCR applications a final concentration of 200 µM each dNTP is recommended.

Description
dNTP Mix is an equimolar mixture of ultrapure dATP, dCTP, dGTP, and dTTP supplied as clear aqueous solution (pH 8.5) and suitable for all molecular biology applications including PCR/qPCR, reverse transcription, DNA labeling and DNA sequencing

Quality Control Specifications
Low Copy Long Range PCR (18 kb, lambda DNA, template dilution series): PCR fragment with 50 pg of template or less
RT-PCR (749 bp fragment, human GAPDH gene, template dilution series): PCR fragment with 10 pg of template or less
Contamination with bacterial or human DNA: not detectable
DNases, RNases, Nicking Activity: not detectable
Proteases: not detectable

Selected References
[1] Erlich *et al.* (1988) Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* **29 (239)**:487.

[2] Gelfand *et al.* (1991) Detection of specific polymerase chain reaction product by utilizing the 5'- 3' exonuclease activity of Thermus aquaticus DNA polymerase. *Proc. Natl. Acad. Sci. USA* **88 (16)**:7276.

[3] Sanger *et al.* (1977) DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA* **74**:5463.